

- **Selectable firing mode**
Phase angle variation or Burst fired
- **Wide input range available**
24Vac, 48Vac, 115Vac, 230Vac, 400Vac
- **Output power**
VPL72 - 115 : 5 kW, 115 Volts version
VPL72 - 230 : 9 kW, 230 Volts version
VPL72 - 400 : 16 kW, 400 Volts version
 Current range: 0.1A to 40A
 also available in 24 Vac and 48 Vac,
- **Selectable proportional setpoint**
 - Internal by potentiometer
 - External (4...20mA or 0...10V)
- **Application : Plastics processing**
 Small oven, environmental chamber, test bench,
 lighting, IR light,
 band heaters, dryers, ...



Power controller with analog command. The output modulation can be phase angle variation or burst fired (zero-cross) , allows extremely fine and fast modulation of resistive loads even with low thermal inertia as infrared.

Description:

Burst fired or phase angle controller for resistive loads used in single or three phase (by coupling the setpoint input circuits). High robustness due to absence of mobile mechanical parts, ensuring greater longevity and maintenance costs reduction (shocks and vibrations insensitivity)

Flexibility of applications:

- Burst fired (zero-crossing) for high inertia system (cycle time: 1.2s)
- Phase angle control for fast applications and fine regulations.
- « linear soft start » enabling limitation of load inrush current (low inertia load preheat like «infrared»)

Input transfer function proportional to phase angle in phase angle modulation. Operating frequency 50 - 60 Hz self adaptive.

Selectable setpoint by Dip switches:

- Internal: mono turn potentiometer (0...100% graduated)
- External: analog input (4...20mA or 0...10Volts)

panel mounting or DIN rail mounting. Natural convection cooling . designed for nominal current capacity at 45°C room temperature

Connection:

- Setpoint input on pluggable screw connectors (1.5mm²)
- Power supply and output on fixed screw connectors (0.5mm² to 16 mm²)

Self powered, isolated internal power supply (Green LED: supply voltage presence)

Build in protection with RC circuit

The VPL72 was primarily conceived for resistive load It is therefore necessary to ensure of inrush current compatibility at power up. Inrush current of incandescent lamps is usually 10 x greater than rated current for some tens of milliseconds.

(See Table "Acceptable overload current " of technical specifications at the back of the page)

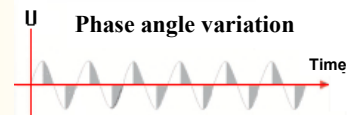
Protection against short circuits must be done by a fast fuse (1/2 of switching device $i^2t \Rightarrow 1500A^2s/2$ to ensure effective protection)

Note: semiconductor relays do no provide galvanic isolation between network and load.

Modulation type:

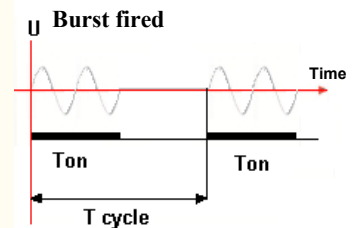
Phase angle variation

Advantage:
Allows precise load control.
Suitable for low inertia loads.
Disadvantage: generates more disturbance.



Burst fired

Advantage:
"clean" switching, no disturbance generated.
Disadvantage: not appropriate for low inertia loads, accuracy limitation of load control due to cycle time.
(1% for a 1seconde cycle at 50Hz)



Version and order code:

[Request a quote](#)

VPL72-*vvv* Power controller with selectable modulation mode and input type by DIP switch

-*vvv* Power supply to be defined
24Vac , 48Vac , 115Vac , 230Vac , 400Vac
other voltage on request

INPUT (external setting)

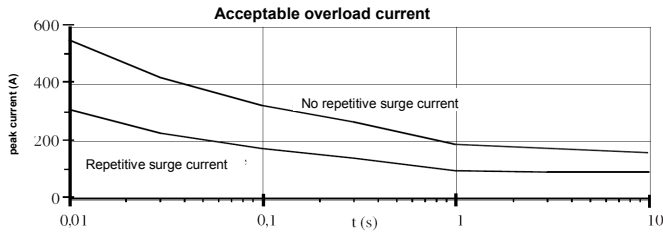
Selectable by dip switches
 Current input: 4 ... 20 mA
 Input impedance 250 ohms
 Voltage input : 0 ... 10 Volts
 Input impedance 50 Kohms

OUTPUT

Phase angle or burst fired
 Selectable by dip switches
 Burst fire period: 1.2 sec. at 50 Hz
 Output current: 35 A
 Current, minimal load: 100mA
 Off state leakage current: < 2.5mA
 On state voltage drop: 1.4V
 Power dissipation: 1.4 x Is (watts)
 Temperature rising: 0.98 x Is (°C)
 Non repetitive overload current: 500A peak
 I²t (<10ms) 1500 A²s

POWER SUPPLY (model dependent)

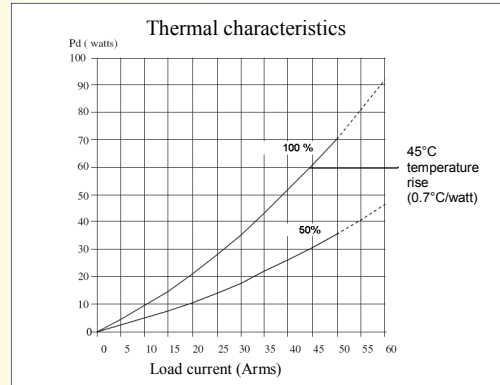
115V +/-15% 50 - 60Hz or
 230V +/-15% 50 - 60Hz or 400V +/-15% 50 - 60Hz
 Other voltage available (24Vac, 48Vac,.....)



ENVIRONMENT

Operating temperature -10 °C to 45 °C
 Storage temperature -20 °C to 85 °C
 Humidity 85 % (not condensed)
 Dielectric strength 4000 Vrms permanent
 Weight 1200 g
 Protection rating IP20

Vertical mounting recommended for optimum dissipation.

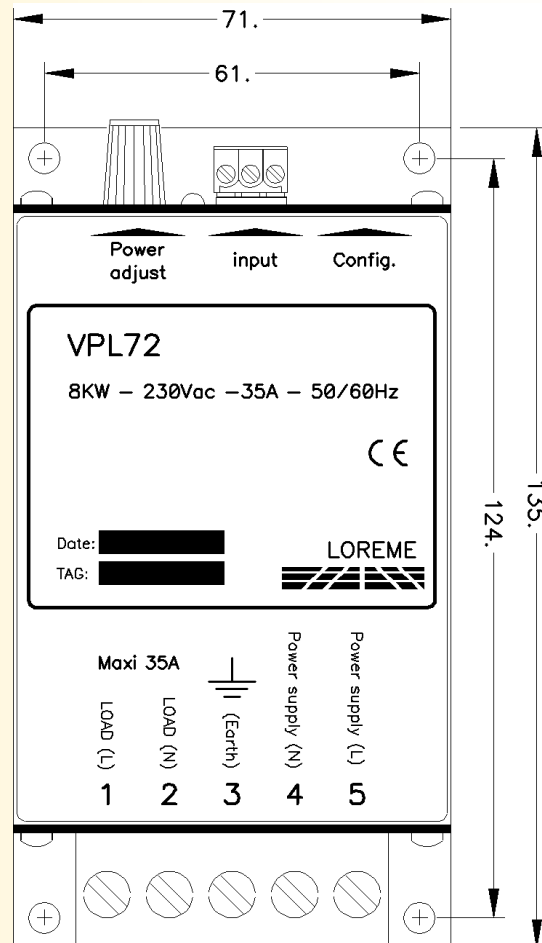
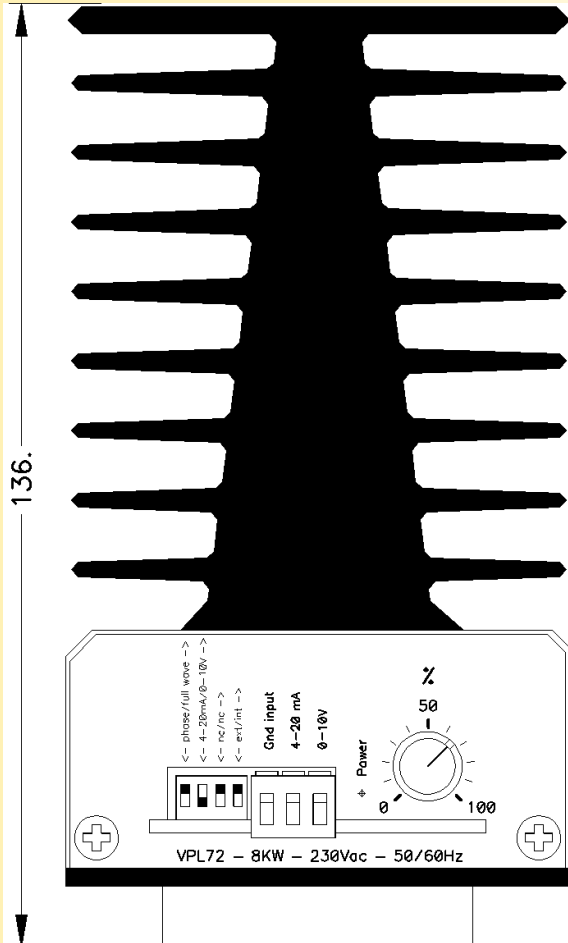


Electromagnetic compatibility 2014/30/UE / Low Voltage Directive 2014/35/UE

Immunity standard for industrial environments EN 61000-6-2		Emission standard for industrial environments EN 61000-6-4
EN 61000-4-2 ESD	EN 61000-4-8 AC MF	EN 55011 group 1 class A
EN 61000-4-3 RF	EN 61000-4-9 pulse MF	
EN 61000-4-4 EFT	EN 61000-4-11 AC dips	
EN 61000-4-5 CWG	EN 61000-4-12 ring wave	
EN 61000-4-6 RF	EN 61000-4-29 DC dips	



WIRING AND OUTLINE DIMENSIONS:



In order to secure their technical features, we recommend at least a 25 mm spacing between each devices.